

## XXVI.—Notice of some of the rarer Plants observed in Orkney during the Summer of 1849. By JOHN T. SYME, Esq.\*

HAVING passed the greater part of last summer in Orkney, and during that time having examined the natural history of the parts of it which I visited, I now lay before the Society a notice of a few of the rarer plants which I observed. I would have drawn up a list of *all* the species which I met with, but as I had opportunities of botanizing only in the southern part of the mainland and in the islands of Hoy, Burray and Flota, I have thought it advisable to defer this until I shall have made some acquaintance with the botany of the other islands, which I hope to accomplish next summer.

The flora of Orkney is by no means extensive, and excepting some alpine plants which are found at a lower elevation than usual, it embraces very few species of interest;—as is to be expected from its bare and treeless condition and the uniformity of its geological formation; the old red sandstone, with here and there a trap-dyke, being the only rock to be met with; while the incessant winds charged with saline particles and the low summer temperature forbid the growth of the more tender plants, as well as those which rise above the shelter of the surrounding vegetation.

In addition to these adverse circumstances, by far the greater proportion of the ground is flat and moorish, which still more contributes to give a sameness to the vegetation; so that I think we may account for the paucity of species from the physical conditions of the Orkney islands, without having recourse to any theory of centres of vegetation and migration of plants.

I shall now proceed to give the names of the plants I met with, nearly in the order in which I noticed them, with the dates when the various trips were made, as extracted from my journal.

On the 5th of June last, I went on board the screw steamer "Northman," at Leith, and after a tedious passage of forty hours, arrived in Kirkwall Bay. The morning was wet and windy, but being impatient to examine the botany and entomology of a district new to me, and feeling the desire of again walking on *terra firma*, as is natural to a landsman after a sea voyage of longer duration than he is accustomed to, I set out for Swanbister, the place of my destination, about eight miles south-west of Kirkwall. I soon found, however, that novelties or even rarities were not to be expected, for I did not in the whole of my walk find a single plant worth drying.

In the town of Kirkwall I saw *Stachys ambigua* (not yet in

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flower), growing among the nettles at the sides of the lanes. About two miles from Kirkwall there is a pond and marsh at the side of the road, where *Menyanthes trifoliata* was growing along with *Equisetum limosum* and *Carex ampullacea*; and in the moors along the sides of the roads, I saw *Luzula multiflora*, *Lycopodium Selago*, *Salix repens* and *Primula acaulis*, but nothing of any interest until I reached Swanbister, where *Scilla verna* was in great profusion, and *Gymnadenia albida* just coming into flower.

A few days after I found at Smoogro a curious variety of *Plantago lanceolata*, with very woolly leaves, lying flat on the ground and much broader than usual. Near this place *Stenhammaria maritima* used to occur, but there was no appearance of it. I suppose it must have been covered up with shingle by the sea, during the winter.

On the 12th of June I went to Howton Head, about three miles west of Swanbister, to see the station for *Primula scotica*, which was easily found, but appeared to have flowered very sparingly, as I only saw two plants in seed. Here I also found *Lycopodium selaginoides* and *Thalictrum alpinum*, about 200 feet above the sea; a curious fact, as where alpine plants are found at so low a level, it is usually where there is high ground behind, from which they have been brought down by burns, &c.; but here there are no hills of any considerable height near, and, indeed, I never found this nor any alpine plant elsewhere on the mainland.

On the 25th of June I had an excursion, in company with Mr. Robert Heddel, to Kirbister Loch, about two miles north-west of Swanbister. Here we found *Potamogeton filiformis*, 4 or 5 feet long, and with the peduncles 18 inches long (a form which I afterwards observed in the lower Loch of Stennis growing in the brackish water along with dwarfed and discoloured plants of *Fucus vesiculosus*).

In old marl-pits in the loch we found *Zannichellia palustris* and *Potamogeton heterophyllus* and *P. perfoliatus*. After completing the survey of the loch we went to Neversdale, where Dr. Duguid used to find *Ajuga pyramidalis* abundantly, but which had disappeared for the last four years; and after a very careful search, Mr. R. Heddel found a single plant of it, of which of course the root was carefully left. Here we also saw *Eleocharis uniglumis*, *Melampyrum pratense*  $\beta$ . *montanum*, and *Botrychium Lunaria*. But by far the most interesting excursion I made was to the Wast hill of Hoy, on the 28th of June, which I owed to the kindness of Mr. Heddel, who took me across in his yacht and pointed out the habitats of most of the very interesting alpine plants which are to be found there. Unfortunately our time

was very limited, as we had to beat against wind and tide, and so did not reach the Bow (at the foot of the hill) till the afternoon. The ascent to the hill is at first not quite so steep as the slope of the debris of Salisbury Crags at Edinburgh, and here *Galium pusillum*, *Saxifraga aizoides* and *Silene acaulis* were abundant, even at the very foot of the hill. After ascending about 500 feet, the red sandstone rock rises nearly perpendicularly for about 150 feet, and here we gathered *Thalictrum alpinum*, *Saussurea alpina*, *Oxyria reniformis*, *Sedum Rhodiola*, and a *Hieracium* not in flower, which appeared to be *H. murorum* γ. *Lawsoni*. Above the rocks the hill is nearly bare of vegetation, and covered with debris, among which *Dryas octopetala* was growing in great perfection. *Saxifraga oppositifolia* and *Draba incana* also occur on the hill, but we had not time to look for them, as I was most anxious to see the station for *Ajuga pyramidalis*, found by Mr. Robert Heddel, at the Burn of Berridale. We accordingly descended into the valley of Rackwick, gathering *Lycopodium annotinum* on our way, and reached the Burn of Berridale about six o'clock in the evening. This ravine is remarkable as being the only place in Orkney where the birch and mountain-ash are to be seen growing wild. We soon found the *Ajuga pyramidalis*, which is confined to the west side of the burn near its mouth, and is by no means easily noticed. The barren plants resemble very much young plants of *Digitalis purpurea*, and they usually flower under the shelter of bushes of *Calluna vulgaris*. The plants were small, from 1–3 inches high, but were still in flower, while that which I had seen in Neversdale some days before had its seeds nearly ripe. *Melampyrum pratense* β. *montanum*, *Scirpus fluitans* and *Drosera anglica* also occurred here, and *Arctostaphylos Uva-ursi* in great profusion. There are also bushes of *Corylus Avellana* and *Hedera Helix* among the rocks. *Rubus suberectus* was found by Dr. Duguid on the north-west of Hoy, but we had not time to visit the station before embarking on our return to the Bow.

My next trip to Hoy was on the 3rd of July, when I examined part of the south-west coast, in company with Mr. Heddel. About two miles from Melsetter, *Stenhammaria maritima* occurred, and on the hills in several places *Arctostaphylos alpina* and *Vaccinium uliginosum*. Mr. Heddel has found *Lobelia Dortmanna* in several of the lakes in Waas, but I did not meet with it myself.

On the 17th of August I again visited Howton Head, but found *Primula scotica* out of flower. I was misled by the plants of it in the garden at Swanbister, which came into flower at this time, being probably delayed in flowering by having been transplanted in the spring. *Anagallis tenella* and *Habenaria viridis*

were now in flower at this place, but I saw nothing else of any interest.

On the 28th of August I paid a visit to the north-west coast of Hoy, and found *Drosera anglica* in abundance, and *Vaccinium uliginosum* sparingly, and in the marshes above Rysay *Schœnus nigricans* and *Eleocharis multicaulis*, both of which I also found in several places in the mainland.

On the 31st *Stachys ambigua* was in flower at Kirkwall. Near Piggar, and in several other places round Swanbister, *Anthemis nobilis* occurs in plenty and apparently wild in one marshy field in particular, where it covers a large extent of ground, and is now at all events perfectly naturalized.

At Swanbister there is a tract of low land called the "Fidge," which used to be overflowed by the sea at spring tides, but is now protected from this by a sea-wall built by Mr. Fortescue. Here there are a good many of the plants that are to be found in salt marshes, *Salicornia herbacea*, *Cakile maritima*, *Alsine maritima*, *Sagina maritima*, *Carex extensa*, *Eleocharis uniglumis*, *Ruppia rostellata*, *Potamogeton filiformis*, *Blysmus rufus*, and one plant of *Stenhammaria maritima*. On the rocks called "Barnory," to the south of this, *Ligusticum scoticum* and the maritime form of *Pyrethrum inodorum* were seen; both of these plants also occur in profusion in the island of Burray along with *Silene maritima*.

*Avena fatua* and *strigosa* are found in most of the turnip-fields, &c., and appear to be quite indigenous. *Festuca ovina* var. *vivipara* is also common, and *Radiola millegrana* is to be seen in most of the moors.

There are a few bushes of *Populus tremula* and *Rosa villosa* on the cliffs, on the east side of the Wauk-mill bay between Kirkwall and Swanbister.

These are all the plants which I met with that are worth noticing; but on my next trip to Orkney I hope to be able to visit the north isles, which may perhaps add some others to the list, and make a trip to Orkney of sufficient interest to attract botanists more competent than myself to examine its flora.

84 Great King Street, Edinburgh, Feb. 5th, 1850.

XXVII.—*Descriptions of Aphides.* By FRANCIS WALKER, F.L.S.

[Continued from p. 28.]

77. *Aphis Mali*, Fabricius.

*Aphis Mali*, Fabr. Ent. Syst. iv. 216; Syst. Rhyn. 298; Schrank, Faun. Boic. ii. 116; Götze, Ent. Beit. ii. 317; Stew.